

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
13 January 2005 (13.01.2005)

PCT

(10) International Publication Number  
**WO 2005/002887 A2**

(51) International Patent Classification<sup>7</sup>: **B60C 23/00**

(21) International Application Number:

PCT/IB2004/002197

(22) International Filing Date: 2 July 2004 (02.07.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
0315489.5 2 July 2003 (02.07.2003) GB

(71) Applicant (*for all designated States except US*):  
MELEXIS NV [BE/BE]; Microelectronic Integrated Systems, Rozendaalstraat 12, B-8900 Leper (BE).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): CHEN, Jian [CN/BE]; Spekstraat 1, B-2220 Heist-op-den Berg (BE). VAN DER WIEL, Appolonius, Jacobus [NL/BE]; De Robianostraat 21, B-3080 Tervuren (BE).

(74) Agent: HILL, Richard; Wilson Gunn Skerrett, Charles Street, 148/9 Great Charles Street, Birmingham B3 3HT (GB).

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

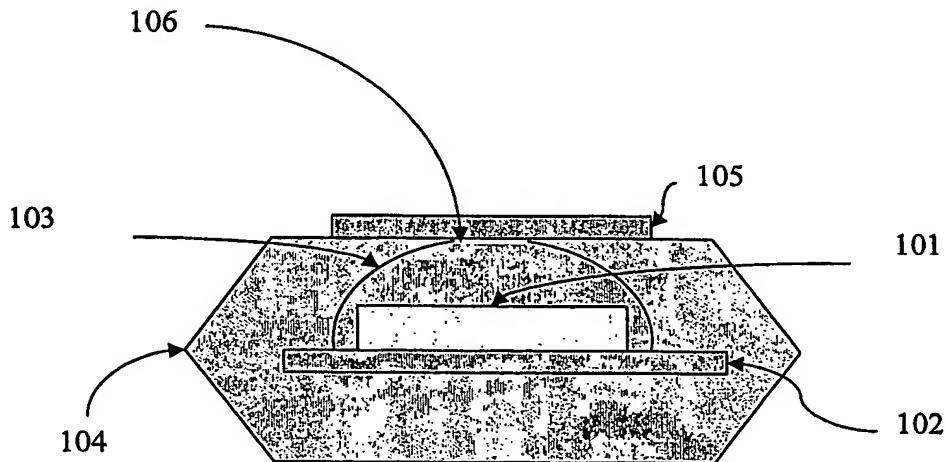
(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PRESSURE SENSOR



WO 2005/002887 A2

(57) Abstract: A pressure sensor 100 suitable for being fitted to or embedded in a tyre comprises an integrated circuit 101 mounted on a lead frame 102, the integrated circuit 101 incorporating a pressure sensing element. A gel blob 103 covers the pressure sensing element of the integrated circuit 101. The integrated circuit 101, lead frame 102 and gel blob 103 are encapsulated within a plastic moulded package 104. An opening 106 is provided in the plastic package 104 through which the gel blob 103 is exposed to the atmosphere. The gel blob 103, being flexible is able to transfer the pressure of the atmosphere to the pressure sensing element. A filter 105 covers the opening 106 in order to prevent the ingress of water or harmful substances into the aperture. In alternative embodiments, the gel blob 103 may be removed.